

Electronic Supplementary Information

Three-dimensional plasmonic nanoclusters driven by co-assembly of thermo-plasmonic nanoparticles and colloidal quantum dots

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KEYWORDS: Plasmonic clusters; Self-assembly; 3D structures; Plasmonic heating; Quantum dots

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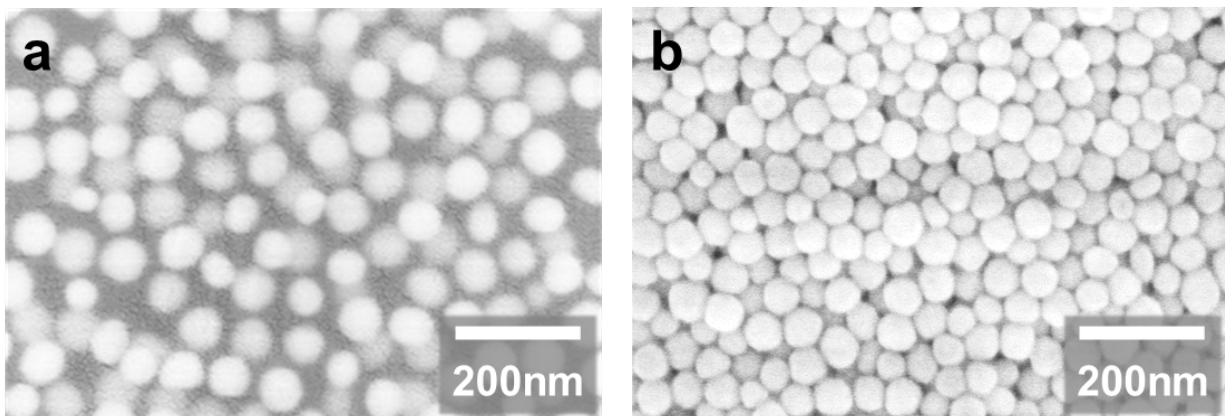


Figure S1. The nanostructures of the pillar fabricated by (a) 50 kDa PS-coated AuNP and (b) 40 kDa PVP-coated AuNP.

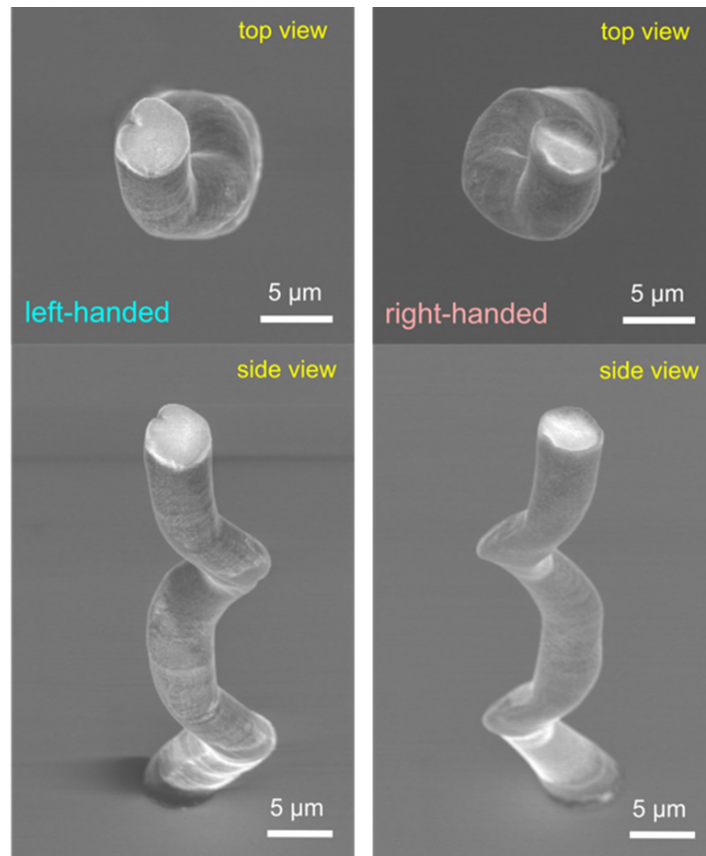


Figure S2. The left-handed and right-handed coil structures fabricated by adjusting the pulling direction of the micropipette.

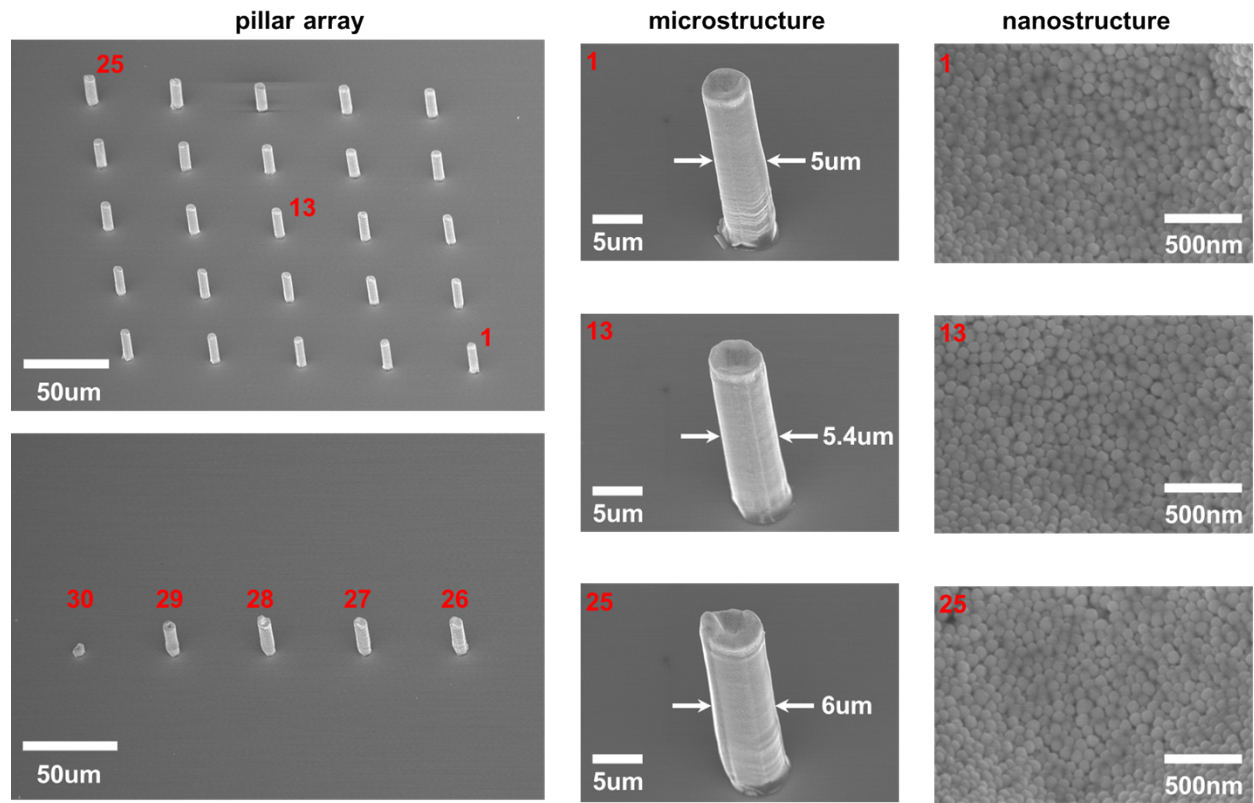


Figure S3. Fabrication of the pillar array and micro/nanostructures of the fabricated pillars

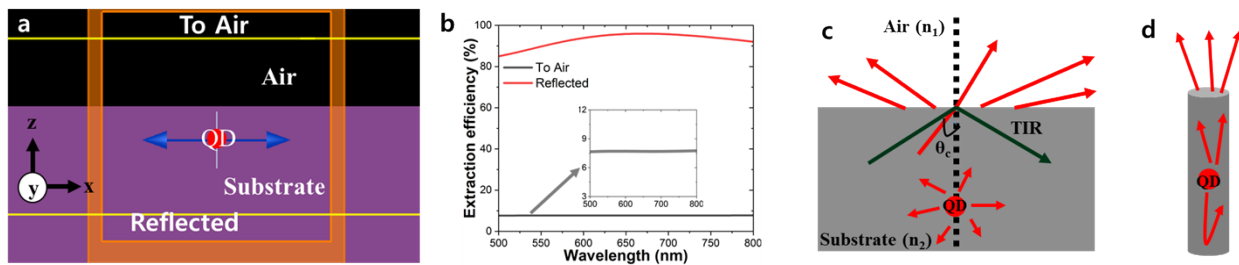


Figure S4. (a) Three-dimensional model of a QD in a dielectric medium surrounded by PML boundary conditions in XYZ directions. (b) Photon extraction efficiency property of a QD in dielectric medium for the monitors recorded at air and within the substrate. Schematic models to explain the optical properties for a QD embedded in a dielectric medium (c) and a free-standing pillar (d).